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## **GASB STATEMENT NO. 68 REPORT**

**FOR THE**

**IOWA PUBLIC EMPLOYEES'**

**RETIREMENT SYSTEM**

**PREPARED AS OF JUNE 30, 2014**





# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

March 23, 2015

Ms. Darla Iverson  
Chief Financial Officer  
Iowa Public Employees' Retirement System  
7401 Register Drive  
Des Moines, IA 50321

Dear Ms. Iverson:

Presented in this report is information to assist the Iowa Public Employees' Retirement System in providing information required under the Governmental Accounting Standards Board (GASB) Statement No. 68 to participating employers. GASB Statement No. 68 establishes accounting and financial reporting requirements for governmental employers who provide pension benefits to their employees through a trust. This report has been prepared as of June 30, 2014.

The annual actuarial valuation used as a basis for much of the information presented in this report, including the collective Net Pension Liability, was performed as of June 30, 2014. The valuation was based upon data, furnished by the Iowa Public Employees' Retirement System staff, concerning active, inactive and retired members along with pertinent financial information. This information was reviewed for completeness and internal consistency, but was not audited by us. The valuation results depend on the integrity of the data. If any of the information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

To the best of our knowledge, this report is complete and accurate. Please note that the allocation of the proportionate share of the collective Net Pension Liability, Pension Expense, and Deferred Inflows and Outflows to participating employers under GASB 68 will be provided by the Iowa Public Employees' Retirement System and, therefore, is not included in this report.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial principles and practices, as well as in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board. The calculations are based on the current provisions of the System and on actuarial assumptions that are internally consistent and individually reasonable based on the actual experience of the System. In addition, the calculations were completed in compliance with the laws governing the System and, in our opinion, meet the requirements of GASB 68. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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Ms. Darla Iverson  
March 23, 2015  
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These results are only for financial reporting and may not be appropriate for funding purposes or other types of analysis. Calculations for purposes other than satisfying the requirements of GASB 68 may produce significantly different results. Future actuarial results may differ significantly from the current results presented in this report due to such factors as changes in plan experience or changes in economic or demographic assumptions.

Respectfully submitted,

A handwritten signature in cursive script, reading 'Patrice A. Beckham'.

Patrice A. Beckham, FSA, EA, FCA, MAAA  
Principal and Consulting Actuary

A handwritten signature in cursive script, reading 'Brent A. Banister'.

Brent A. Banister, PhD, FSA, EA, FCA, MAAA  
Chief Pension Actuary



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**GASB STATEMENT NO. 68  
IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

**PREPARED AS OF JUNE 30, 2014**

**SECTION I - SUMMARY OF PRINCIPAL RESULTS**

**ALL MEMBERSHIP GROUPS**

<b>Valuation Date (VD):</b>	June 30, 2014
<b>Prior Measurement Date:</b>	June 30, 2013
<b>Measurement Date (MD):</b>	June 30, 2014
<b>Membership Data:</b>	
Retirees and Beneficiaries	107,934
Inactive Vested Members	28,713
Inactive Nonvested Members	43,501
Active Employees	<u>165,911</u>
Total	346,059
<b>Single Equivalent Interest Rate (SEIR):</b>	
Long-Term Expected Rate of Return	7.50%
Municipal Bond Index Rate	N/A
Fiscal Year in which Plan's Fiduciary Net Position is projected to be depleted from future benefit payments for current members	N/A
Single Equivalent Interest Rate	7.50%
<b>Collective Net Pension Liability:</b>	
Total Pension Liability (TPL)	\$32,004,456,088
Fiduciary Net Position (FNP)	<u>28,038,549,893</u>
Net Pension Liability (NPL = TPL – FNP)	\$3,965,906,195
FNP as a percentage of TPL	87.61%
<b>Collective Pension Expense:</b>	\$308,768,810
<b>Collective Deferred Outflows of Resources:</b>	\$222,590,981
<b>Collective Deferred Inflows of Resources:</b>	(\$1,668,130,653)



## **SECTION II – INTRODUCTION**

The Governmental Accounting Standards Board issued Statement No. 68 (GASB 68), *“Accounting and Financial Reporting For Pensions”* in June 2012. GASB 68’s effective date for employers is the first fiscal year beginning after June 15, 2014. This report, prepared as of June 30, 2014 (the Measurement Date), presents information to assist the Iowa Public Employees’ Retirement System in providing the required information under GASB 68 to participating employers. Much of the material provided in this report, including the Net Pension Liability, is based on the results of the GASB 67 report for the Iowa Public Employees’ Retirement System, which was issued November 13, 2014. See that report for more information on the member data, actuarial assumptions and methods used in developing the GASB 67 results.

GASB 68 replaces GASB 27 and represents a significant departure from the requirements of the prior statement. GASB 27 required employers providing benefits through pension plans to report items consistent with the results of the plan’s actuarial valuations for funding, as long as those valuations met certain parameters. Employers participating in a cost-sharing multiple employer plan, such as the Iowa Public Employees’ Retirement System, only had to disclose the amount of the required contribution as well as the actual contribution. GASB 68 creates disclosure and reporting requirements that may or may not be consistent with the basis used for funding the System. In fact, GASB 68 paragraph 159 states:

“The Board concluded that it is not within the scope of its activities to set standards that establish a specific method of financing pensions (that being a policy decision for government officials or other responsible authorities to make) or to regulate a government’s compliance with the financing policy or method it adopts. Accordingly, the Board established standards in this Statement within the context of accounting and financial reporting, not within the context of the funding of pensions.”

Two major changes in GASB 68 are the requirements to include a proportionate share of the Net Pension Liability (NPL) on each participating employer’s balance sheet and to determine and show a proportionate share of a Pension Expense (PE) in the Notes to Financial Statements, that may bear little relationship to the funding requirements for the Iowa Public Employees’ Retirement System. In fact, it is possible in some years for the NPL to be an asset or the PE to be an income item.

The NPL is set equal to the Total Pension Liability (TPL) minus the Fiduciary Net Position (FNP). The benefit provisions recognized in the calculation of the TPL are summarized in Appendix B. The Iowa Public Employees’ Retirement System is a cost-sharing multiple employer plan so the NPL and PE are allocated among the participating employers. Those amounts, which are needed for the employers’ financial statements, will be determined by the Iowa Public Employees’ Retirement System.

Among the assumptions needed for the Total Pension Liability calculation is a Single Equivalent Interest Rate (SEIR). To determine the SEIR, the FNP must be projected into the future for as long as there are anticipated benefits payable under the plan provisions applicable to the membership and beneficiaries of the System on the Measurement Date. If the FNP is projected to not be depleted at any point in the future,



the long-term expected rate of return on plan investments expected to be used to finance the benefit payments may be used as the SEIR.

If, however, the FNP is projected to be depleted, the SEIR is determined as the single rate that will generate a present value of benefit payments equal to the sum of the present value determined by discounting all projected benefit payments through the date of depletion by the long-term expected rate of return, and the present value determined by discounting those benefits after the depletion date by a 20-year tax-exempt municipal bond (rating AA/Aa or higher) rate. The rate used, if necessary, for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond index published monthly by the Board of Governors of the Federal Reserve System. Our calculations indicated that the FNP is not depleted, so the bond rate is not used in the determination of the SEIR and a discount rate of 7.50% meets the requirements of GASB 68.

Pension Expense includes amounts for Service Cost (the Normal Cost under the Entry Age Normal actuarial cost method (EAN) for the year), interest on the TPL, recognition of increases/decreases in the TPL due to changes in the benefit structure, actual versus expected experience, actuarial assumption changes and recognition of investment gains/losses. The actual experience and assumption change impacts are recognized over the average expected remaining service life of the System membership as of the Prior Measurement Date, while investment gains/losses are recognized equally over five years. The development of the PE is shown in Section III of this report.

The unrecognized portions of each year's experience, assumption changes and investment gains/losses are used to develop Deferred Inflows and Outflows, which also must be included on the employer's balance sheet.

The sections that follow provide the results of all the required collective calculations, presented in the order laid out in GASB 68 for note disclosure and Required Supplementary Information (RSI). **The Iowa Public Employees' Retirement System will prepare the calculation of the proportionate share of the collective NPL, collective Pension Expense and collective Deferred Inflows and Outflows for each participating employer.**

Although all the assets of the Iowa Public Employees' Retirement System are held in one trust, there are three distinct membership groups (regular members, the sheriffs and deputies group, and the protection occupation group) for whom separate contribution rates are determined each year. Paragraph 49 of GASB 68 provides "to the extent that different contribution rates are assessed based on separate relationships that constitute the NPL, the determination of the employer's proportionate share of the collective NPL should be made in a manner that reflects those separate relationships". Therefore, the calculations of the NPL, PE and Deferred Inflows and Outflows were performed separately for each of the membership groups: Regular Membership, Sheriffs and Deputies and Protection Occupation. For informational purposes only, the results for each group were added together to determine the collective NPL, collective PE and collective Deferred Inflows and Outflows.



### **SECTION III – PENSION EXPENSE**

As noted earlier, the collective Pension Expense (PE) consists of a number of different items. GASB 68 refers to the first as Service Cost, which is the Normal Cost using the EAN actuarial cost method. The second item is interest on the TPL at the long-term rate of return in effect as of the prior Measurement Date.

The next three items refer to any changes that occurred in the TPL due to:

- benefit changes,
- actual versus expected experience or
- changes in actuarial assumptions.

Benefit changes, which are reflected immediately in PE, can be positive, if there is a benefit improvement for existing System members, or negative if there is a benefit reduction. For the year ended June 30, 2014 there were no benefit changes to be recognized.

The next item to be recognized is the portion of current year changes in TPL due to actual versus expected experience for the year. The portion to recognize in the current year is determined by spreading the total change over the average expected remaining service life of the entire System membership. The average expected remaining service life of active members is the average number of years the active members are expected to remain active. For the year beginning July 1, 2013 this number is 10.96. The average expected remaining service life of the inactive members is, of course, zero. Therefore, the number to use for the recognition is the weighted average of these two amounts, or 5.28.

The last item under changes in TPL is changes in actuarial assumptions. The portion to recognize in the current year is determined by spreading the total change over the average expected remaining service life of the entire System membership, similar to the recognition of experience gains and losses.

Employee contributions, including service purchases, and projected earnings on the FNP at the SEIR both serve to reduce the PE. The difference between projected and actual earnings on plan investments in the current period is recognized equally over a five-year period. One-fifth of the difference is recognized in the PE for the current year.

The current year portions of previously determined experience, assumption and earnings amounts, recognized as Deferred Inflows and Outflows are included. Deferred Inflows are subtracted from the PE while Deferred Outflows are added to the PE. Finally, administrative expenses and other miscellaneous items are included.

The calculation of the collective Pension Expense for the year ended June 30, 2014 is shown in the following table.





**Collective Pension Expense**  
**For the Year Ended June 30, 2014**

**ALL MEMBERSHIP GROUPS**

	2014
Service Cost at end of year	\$710,882,930
Interest on the Total Pension Liability	2,229,800,454
Current-period benefit term changes	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	7,770,390
Expensed portion of current-period assumption changes	40,633,574
Employee contributions including service purchases	(443,519,680)
Projected earnings on plan investments	(1,838,487,827)
Expensed portion of current-period difference between projected and actual earnings on plan investments	(413,177,159)
Administrative expenses	14,866,128
Recognition of beginning Deferred Outflows of Resources	0
Recognition of beginning Deferred Inflows of Resources	0
<b>Total Pension Expense</b>	<b>\$308,768,810</b>

Note: System experience and assumption changes are recognized over the average expected remaining service life for all System members, which is 5.28.



**Pension Expense**  
**For the Year Ended June 30, 2014**

**REGULAR MEMBERS**

	<b>2014</b>
Service Cost at end of year	\$645,907,185
Interest on the Total Pension Liability	2,105,066,613
Current-period benefit term changes	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	10,276,629
Expensed portion of current-period assumption changes	41,730,611
Employee contributions including service purchases	(411,741,176)
Projected earnings on plan investments	(1,716,764,566)
Expensed portion of current-period difference between projected and actual earnings on plan investments	(385,860,452)
Administrative expenses	14,299,271
Recognition of beginning Deferred Outflows of Resources	0
Recognition of beginning Deferred Inflows of Resources	0
<b>Total Pension Expense</b>	<b>\$302,914,115</b>

Note: System experience and assumption changes are recognized over the average expected remaining service life for all System members, which is 5.28.



**Pension Expense**  
**For the Year Ended June 30, 2014**

**SHERIFFS AND DEPUTIES**

	2014
Service Cost at end of year	\$15,483,126
Interest on the Total Pension Liability	39,149,332
Current-period benefit term changes	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(863,451)
Expensed portion of current-period assumption changes	(1,057,815)
Employee contributions including service purchases	(9,661,095)
Projected earnings on plan investments	(36,311,286)
Expensed portion of current-period difference between projected and actual earnings on plan investments	(8,137,061)
Administrative expenses	105,355
Recognition of beginning Deferred Outflows of Resources	0
Recognition of beginning Deferred Inflows of Resources	0
<b>Total Pension Expense</b>	<b>(\$1,292,895)</b>

Note: System experience and assumption changes are recognized over the average expected remaining service life for all System members, which is 5.28.



**Pension Expense**  
**For the Year Ended June 30, 2014**

**PROTECTION OCCUPATION**

	<b>2014</b>
Service Cost at end of year	\$49,492,619
Interest on the Total Pension Liability	85,584,509
Current-period benefit term changes	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(1,642,788)
Expensed portion of current-period assumption changes	(39,222)
Employee contributions including service purchases	(22,117,409)
Projected earnings on plan investments	(85,411,975)
Expensed portion of current-period difference between projected and actual earnings on plan investments	(19,179,646)
Administrative expenses	461,502
Recognition of beginning Deferred Outflows of Resources	0
Recognition of beginning Deferred Inflows of Resources	0
<b>Total Pension Expense</b>	<b>\$7,147,590</b>

Note: System experience and assumption changes are recognized over the average expected remaining service life for all System members, which is 5.28.



## **SECTION IV – NOTES TO FINANCIAL STATEMENTS**

The material presented herein will follow the order presented in GASB 68. Paragraph numbers are provided for ease of reference. Amounts are shown in the aggregate. The Iowa Public Employees' Retirement System will determine the proportionate share of certain amounts for individual employers as required by GASB 68.

**Paragraph 74:** The information required is to be prepared by the Iowa Public Employees' Retirement System and/or the individual employer.

**Paragraph 75:** The information required is to be prepared by the individual employer.

**Paragraphs 76(a) – (d):** The information required is to be supplied by The Iowa Public Employees' Retirement System.

**Paragraph 77:** This paragraph requires information regarding the significant actuarial assumptions used to measure the TPL. The complete set of actuarial assumptions utilized in developing the TPL are outlined in Appendix C. The TPL was determined by an actuarial valuation performed as of June 30, 2014, using the following key actuarial assumptions:

Rate of inflation	3.00 percent
Rates of salary increase	4.00 to 17.00 percent, including inflation. Rates vary by membership group.
Wage growth rate	4.00 percent
Long-term investment return	7.50 percent compounded annually, net of investment expense, and including inflation
Single Equivalent Interest Rate	7.50 percent
Rates of Mortality	Mortality rates were based on the RP-2000 Generational Mortality Tables, with age setbacks and age set forwards as well as other adjustments based on different membership groups. Future mortality improvements are anticipated using Projection Scale AA. Different adjustments apply to pre-retirement versus post-retirement versus post-disability mortality tables. See Appendix C for more detailed descriptions.

The actuarial assumptions used in the June 30, 2014 valuation are based on the results of the most recent actuarial experience study, which covered the four-year period ending June 30, 2013. That experience study report is dated May 27, 2014.



**Paragraph 78**

**(a) Discount rate/SEIR.** The discount rate used to measure the TPL at June 30, 2014 was 7.50%. This is the same discount rate used to measure the TPL at June 30, 2013.

**(b) Projected cash flows.** The projection of cash flows used to determine the discount rate assumed that plan contributions from employees and employers will be made according to the current Contribution Rate Funding Policy (see Appendix D):

- a. Employee contribution rate: 40% of the Required Contribution Rate for Regular and Protection Occupation membership. 50% of the Required Contribution Rate for Sheriffs and Deputies. See Appendix B for more detail.
- b. Employer contribution rate: 60% of the Required Contribution Rate for Regular and Protection Occupation membership. 50% of the Required Contribution Rate for Sheriffs and Deputies. See Appendix B for more detail.

Based on those assumptions, the pension plan's FNP was projected to be available to make all projected future benefit payments of current members. Therefore, the long-term expected rate of return on plan assets was applied to all periods of projected benefit payments to determine the TPL.

**(c) Long-term rate of return.** The long-term expected rate of return on plan assets is reviewed every four years as part of the regular experience study. The most recent analysis, performed for the period covering fiscal years 2010 through 2013, is outlined in a report dated May 27, 2014. Generally, several factors are considered in evaluating the long-term rate of return assumption including long-term historical data, estimates inherent in current market data, and an analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) were developed using assumptions for each major asset class, as well as estimates of variability and correlations, provided by the System's investment consultant, Wilshire. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The capital market assumptions developed by the investment consultant are intended for use over a 10-year horizon and may not be useful in setting the long-term rate of return for funding retirement systems over a long timeframe.

The assumption is intended to be a long-term assumption (30 to 50 years) and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years.

**(d) Municipal bond rate.** A municipal bond rate was not used in determining the discount rate. If it were required, the rate would be 4.35%.

**(e) Periods of projected benefit payments.** Projected future benefit payments for all current plan members were projected through 2113.



**(f) Assumed asset allocation.** This information will be supplied by the System.

**(g) Sensitivity analysis.** This paragraph requires disclosure of the sensitivity of the NPL to changes in the discount rate. The following presents the collective NPL of the System, calculated using the discount rate of 7.50 percent, as well as what the System's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50 percent) or 1-percentage-point higher (8.50 percent) than the current rate.

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
Net Pension Liability	\$7,796,570,740	\$3,965,906,195	\$732,967,671

**Paragraph 79:** The required information will be supplied by the Iowa Public Employees' Retirement System.

**Paragraph 80:**

**(a)-(b)** This information will be supplied by the Iowa Public Employees' Retirement System.

**(c)** The Measurement Date of the collective NPL is June 30, 2014. The TPL as of June 30, 2014 was determined based on the June 30, 2014 actuarial valuation for funding, dated October 29, 2014.

**(d)** There were a number of changes in the actuarial assumptions that affected the measurement of the TPL since the prior Measurement Date. Please see the GASB 67 report for the specific changes.

**(e)** There was no change in the benefit terms that affected measurement of the TPL since the prior Measurement Date.

**(f)** The information will be supplied by the Iowa Public Employees' Retirement System.

**(g)** Please see Section III for the development of the collective PE. The Iowa Public Employees' Retirement System will provide the proportionate share for each participating employer.

**(h)(1) – (3)** Since certain expense items are recognized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce PE they are labeled Deferred Inflows. If they will increase PE they are labeled Deferred Outflows. The recognition of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are recognized over the average expected remaining service life of the active and inactive plan



members at the beginning of the fiscal year. Investment gains and losses are recognized over a fixed five-year period.

Paragraph 53 of GASB 68 states that the employer's proportionate share of PE and Deferred Inflows and Outflows should be determined using the employer's proportionate share of the collective NPL. Since the allocation of the collective NPL will be performed separately for each of the membership groups, Regular Membership, Sheriffs and Deputies and Protection Occupation groups, the PE and Deferred Inflows and Outflows are also allocated by membership group.

The following tables show the Deferred Inflows and Outflows as of June 30, 2014 for each of the three membership groups in the Iowa Public Employees' Retirement System: (1) the Regular Membership, (2) Sheriffs and Deputies and (3) Protection Occupation.

<b>Regular Membership</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$43,983,968	\$0
Changes of assumptions	178,607,013	0
Net difference between projected and actual earnings on plan investments	<u>0</u>	<u>(1,543,441,807)</u>
Total	\$222,590,981	(\$1,543,441,807)

<b>Sheriffs and Deputies</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$0	(\$3,695,570)
Changes of assumptions	0	(4,527,447)
Net difference between projected and actual earnings on plan investments	<u>0</u>	<u>(32,548,245)</u>
Total	\$0	(\$40,771,262)





Protection Occupation	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$0	(\$7,031,130)
Changes of assumptions	0	(167,868)
Net difference between projected and actual earnings on plan investments	<u>0</u>	<u>(76,718,586)</u>
Total	\$0	(\$83,917,584)

The following table provides the collective Deferred Inflows and Outflows as of June 30, 2014 for the System in total (all membership groups). This table is provided for summary purposes only. The tables by membership group should be used when determining the proportionate share of the Deferred Inflows and Outflows for each participating employer, which will be provided by the Iowa Public Employees' Retirement System.

Total - All Groups	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$43,983,968	(\$10,726,700)
Changes of assumptions	178,607,013	(4,695,315)
Net difference between projected and actual earnings on plan investments	<u>0</u>	<u>(1,652,708,638)</u>
Total	\$222,590,981	(\$1,668,130,653)

**(h)(4) and (5)** Changes in the employer's proportion and differences between the employer's contributions and the employer's proportionate share of contributions are considered Deferred Inflows and Outflows. In addition, any employer contributions subsequent to the Measurement Date are also Deferred Outflows. This information will either be provided by the Iowa Public Employees' Retirement System or the individual employer.



(i) The following tables provide the Deferred Inflows and Outflows as of June 30, 2014 for the Regular Membership, Sheriffs and Deputies and Protection Occupation groups that will be recognized in PE in future years:

<b>Regular Membership</b>		
<b>Year Ended June 30:</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
2015	\$52,007,240	(\$385,860,452)
2016	52,007,240	(385,860,452)
2017	52,007,240	(385,860,452)
2018	52,007,240	(385,860,451)
2019	14,562,021	0
Thereafter	0	0

<b>Sheriffs and Deputies</b>		
<b>Year Ended June 30:</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
2015	\$0	(\$10,058,327)
2016	0	(10,058,327)
2017	0	(10,058,327)
2018	0	(10,058,328)
2019	0	(537,953)
Thereafter	0	0

<b>Protection Occupation</b>		
<b>Year Ended June 30:</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
2015	\$0	(\$20,861,656)
2016	0	(20,861,656)
2017	0	(20,861,656)
2018	0	(20,861,658)
2019	0	(470,958)
Thereafter	0	0



The following table provides a summary of the collective amounts reported as Deferred Outflows of resources and Deferred Inflows of resources to be recognized in PE in future years for each group. This table is provided for informational purposes only. The tables by membership group should be used when determining the proportionate share of the Deferred Inflows and Outflows for each participating employer, which will be provided by the Iowa Public Employees' Retirement System.

Year Ended June 30:	Deferred Outflows of Resources	Deferred Inflows of Resources
2015	\$52,007,240	(\$416,780,435)
2016	52,007,240	(416,780,435)
2017	52,007,240	(416,780,435)
2018	52,007,240	(416,780,437)
2019	14,562,021	(1,008,911)
Thereafter	0	0

(j) There are no non-employer contributing entities at IPERS.



## **SECTION V – REQUIRED SUPPLEMENTARY INFORMATION**

There are several tables of Required Supplementary Information (RSI) that need to be included in the System's financial statements:

**Paragraphs 81(a) and (b):** This information will be provided by the Iowa Public Employees' Retirement System Employer Self-Service through I-Que.

**Paragraph 82:** Information about factors that significantly affect trends in the amounts reported in the schedules required by paragraph 81 should be presented as notes to the schedules. At this point, only one year is being reported in the Schedule of the Employer's Proportionate Share of the Net Pension Liability. Comments on additional years will be added as they occur. Employers should have the information available to report ten years in the Schedule of Employer Contributions.

***Changes of benefit and funding terms:*** The following changes were made by the Iowa Legislature and reflected in the valuation performed as of June 30 listed below:

6/30/2014 Valuation

- None

***Changes in actuarial assumptions:***

6/30/2014 Valuation:

- The inflation assumption decreased from 3.25% to 3.00% per year.
- The assumed rate of interest on member accounts was decreased from 4.00% to 3.75% per year.
- Male mortality rates for Regular members were adjusted:
  - State males were changed to the RP-2000 Healthy Annuitant Table using generational mortality projections with no age adjustment.
  - School males were changed to the RP-2000 Healthy Annuitant Table using generational mortality projections with a 1-year age set back and rates decreased by 5% below age 75.
  - Other males were changed to the RP-2000 Healthy Annuitant Table using generational mortality projections with no age adjustment.
- Retirement rates were reduced for Sheriffs and Deputies between the ages of 55 and 64.
- Beginning June 30, 2014, the Amortization Method amortizes the June 30, 2014 UAL as a level percentage of payroll over a closed 30-year period. Each year thereafter, changes in the UAL will result in the establishment of new amortization bases. The future bases arising from plan experience will be amortized over a closed 20-year period beginning on the date the base is established. The amortization period for changes in the UAL due to plan amendments and assumption changes will be determined by the Investment Board at the time they occur.



**APPENDIX A**

**SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY**

**ALL MEMBERSHIP GROUPS**

**Fiscal Year Ended June 30**

	<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) – (b)</b>
Balances at June 30, 2013	\$30,620,384,634	\$24,878,706,029	\$5,741,678,605
Changes for the year:			
Service cost	710,882,930		710,882,930
Interest	2,229,800,454		2,229,800,454
Benefit term changes	0		0
Differences between expected and actual experience	41,027,658		41,027,658
Assumption changes	214,545,272		214,545,272
Employer contributions		639,001,548	(639,001,548)
Employee contributions including service purchases		443,519,680	(443,519,680)
Net investment income, including net securities lending income		3,904,373,624	(3,904,373,624)
Benefit payments, including member refunds	(1,812,184,860)	(1,812,184,860)	0
Administrative expenses		(14,866,128)	14,866,128
Other changes	0	0	0
Net changes	<u>1,384,071,454</u>	<u>3,159,843,864</u>	<u>(1,775,772,410)</u>
Balances at June 30, 2014	\$32,004,456,088	\$28,038,549,893	\$3,965,906,195



**APPENDIX A**

**SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY**

**REGULAR MEMBERS**

**Fiscal Year Ended June 30**

	<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) – (b)</b>
Balances at June 30, 2013	\$28,917,257,303	\$23,255,252,018	\$5,662,005,285
Changes for the year:			
Service cost	645,907,185		645,907,185
Interest	2,105,066,613		2,105,066,613
Benefit term changes	0		0
Differences between expected and actual experience	54,260,597		54,260,597
Assumption changes	220,337,624		220,337,624
Employer contributions		596,983,323	(596,983,323)
Employee contributions including service purchases		411,741,176	(411,741,176)
Net investment income, including net securities lending income		3,646,066,825	(3,646,066,825)
Benefit payments, including member refunds	(1,730,692,751)	(1,730,692,751)	0
Administrative expenses		(14,299,271)	14,299,271
Other changes	(7,290,284)	(7,290,284)	0
Net changes	<u>1,287,588,984</u>	<u>2,902,509,018</u>	<u>(1,614,920,034)</u>
Balances at June 30, 2014	\$30,204,846,287	\$26,157,761,036	\$4,047,085,251



**APPENDIX A**

**SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY**

**SHERIFFS AND DEPUTIES**

**Fiscal Year Ended June 30**

	<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) – (b)</b>
Balances at June 30, 2013	\$534,492,807	\$485,970,299	\$48,522,508
Changes for the year:			
Service cost	15,483,126		15,483,126
Interest	39,149,332		39,149,332
Benefit term changes	0		0
Differences between expected and actual experience	(4,559,021)		(4,559,021)
Assumption changes	(5,585,262)		(5,585,262)
Employer contributions		9,583,512	(9,583,512)
Employee contributions including service purchases		9,661,095	(9,661,095)
Net investment income, including net securities lending income		76,996,592	(76,996,592)
Benefit payments, including member refunds	(25,463,753)	(25,463,753)	0
Administrative expenses		(105,355)	105,355
Other changes	2,617,863	2,617,863	0
Net changes	<u>21,642,285</u>	<u>73,289,954</u>	<u>(51,647,669)</u>
Balances at June 30, 2014	\$556,135,092	\$559,260,253	(\$3,125,161)



**APPENDIX A**

**SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY**

**PROTECTION OCCUPATION**

**Fiscal Year Ended June 30**

	<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) – (b)</b>
Balances at June 30, 2013	\$1,168,634,524	\$1,137,483,712	\$31,150,812
Changes for the year:			
Service cost	49,492,619		49,492,619
Interest	85,584,509		85,584,509
Benefit term changes	0		0
Differences between expected and actual experience	(8,673,918)		(8,673,918)
Assumption changes	(207,090)		(207,090)
Employer contributions		32,434,713	(32,434,713)
Employee contributions including service purchases		22,117,409	(22,117,409)
Net investment income, including net securities lending income		181,310,207	(181,310,207)
Benefit payments, including member refunds	(56,028,356)	(56,028,356)	0
Administrative expenses		(461,502)	461,502
Other changes	4,672,421	4,672,421	0
Net changes	<u>74,840,185</u>	<u>184,044,892</u>	<u>(109,204,707)</u>
Balances at June 30, 2014	\$1,243,474,709	\$1,321,528,604	(\$78,053,895)





## **APPENDIX B**

### **SUMMARY OF PLAN PROVISIONS**

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Chapter 97B of the Iowa code sets out the IPERS provisions, which are briefly summarized as follows:

**Participation:** In general, the System covers people in non-federal public employment within the State of Iowa. Membership is mandatory if a person is in covered employment. Exceptions to this are set out in the law. Notable exceptions are those covered by another public system in Iowa (such as judges, state patrol, and policemen and firemen in cities having civil service), employees of the Regents' institutions, and employees of the community colleges who elect alternative coverage.

**Service Credit:** A member will receive membership credit for service rendered after July 4, 1953 (special rules apply to service before this date). Service is counted to the complete quarter of a calendar year. A member will not receive credit for more than four quarters of service in a calendar year regardless of the number of employers reporting covered wages for that member. A calendar year is the 12-month period beginning January 1 and ending December 31.

Members may purchase service under specified conditions. To make such a purchase, the member must pay the actuarial cost of such service.

#### **REGULAR MEMBERS:**

**Average Salary:** The average of the member's highest three years of covered wages. Effective July 1, 2012 the average of a member's highest five years of covered wages, but not less than the member's highest three years as of June 30, 2012, if vested at that time.

#### **Age and Service Requirements for Benefits:**

Normal Retirement	Earliest of the first day of the month of the member's 65 <sup>th</sup> birthday, age 62 with 20 years of service or Rule of 88 (age plus service equals/exceeds 88), with a minimum of age 55.
Early Retirement	First day of any month starting with the month of the member's 55 <sup>th</sup> birthday but preceding the normal retirement date.
Inactive Vested Benefit	Four years of service (seven years effective July 1, 2012). Prior to July 1, 2005 inactive members could become eligible for a vested benefit merely by reaching age 55.
Pre-retirement Death Benefit	Upon death of a member before benefits have started.
Disability Benefit	Upon meeting requirements to be vested, if the active or inactive member begins receiving federal Social Security disability or Railroad Retirement disability benefits.



## **APPENDIX B**

### **Retirement Benefits:**

#### **Normal Retirement**

An annuity equal to 2% of Average Salary (AS) for each year of service up to 30 years plus 1% of AS for each of the next 5 years of service. Maximum years of service recognized for benefit accrual purposes is 35 with a resulting maximum benefit of 65% of AS.

#### **Early Retirement**

An annuity, determined in the same manner as for normal retirement. However, a reduction of 0.25% per month is applied for each month the benefit commences prior to normal retirement age (based on service at early retirement). Effective July 1, 2012, the reduction changed to 0.50% per month and applies to each month that the benefit commences before age 65. Transition rules apply if members have service both before and after July 1, 2012.

#### **Pre-retirement Death Benefits**

Beneficiaries of members may receive a lump sum determined by a formula that includes how much the member contributed to IPERS, years of service, highest year's salary, and other factors. Beneficiaries may have the option of receiving a monthly benefit based on the present value of the member's accrued benefit at death.

#### **Disability Benefits**

An annuity, payable immediately, equal to the Normal Retirement Benefit without an early retirement adjustment.

### **Termination Benefits:**

#### **Less than four\* years of Service (Nonvested)**

A refund of all of the member's accumulated contributions.

#### **Four\* or more years of Service (Vested)**

At the member's election either:

- (1) a refund of all of the member's accumulated contributions plus a portion (years of service divided by 30) of the employer's contributions with interest, or
- (2) a deferred benefit determined in the same manner as for normal retirement. Payments can begin at normal or early retirement.

\* Effective July 1, 2012 seven years of service for those not vested at that time.



## **APPENDIX B**

### **Form of Annuity:**

The base form, or normal form, is a life annuity with a guaranteed return of employee contributions (Option 2).

### **Optional Forms of Payment:**

*Option 1:* The member specifies a dollar amount, in \$1,000 increments, that the member wishes to have paid to a designated beneficiary following the death of the member. The death benefit will be in the form of a single payment and cannot exceed the amount of a member's own accumulated contributions to IPERS, and it cannot lower the member's benefit as calculated under Option 2 by more than 50%.

*Option 3:* After the member's death, all benefits cease.

*Option 4:* The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. The member specifies what benefit the contingent annuitant will receive after the death of the member. The monthly benefit can be the same as the member's monthly benefit or three-fourths, one-half, or one-fourth of the amount. These choices may be restricted if the contingent annuitant is not the member's spouse and is more than ten years younger than the member.

*Option 5:* If the member dies before ten full years (120 months of payments) have ended, the member's beneficiary will receive a monthly benefit for the remainder of the ten years. Members who have attained age 90 as of the first month of entitlement are not allowed to select this option.

*Option 6:* The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. In addition, the monthly amounts are also reduced to pay for a pop-up feature. The pop-up feature provides that if the contingent annuitant dies before the member, the member's benefit will pop back up to what it would have been under IPERS Option 2, and death benefits may be payable to the member's designated beneficiary if certain conditions are met.

### **Actuarial Equivalent Lump Sum Payment:**

If a vested member is entitled to receive a benefit and it is less than \$50 per month under Option 2, the member shall receive a retirement benefit in an actuarial equivalent lump sum payment. The lump sum will include the member's and employer's accumulated contributions.



## **APPENDIX B**

### **Post-retirement Benefit Increases:**

Annual dividends are paid to those retired prior to July 1, 1990. Effective with the November 2000 dividend payment, the dividend is adjusted by the least of the following percentages: (1) the change in the CPI, (2) percentage certified to by the actuary as affordable by the System, and (3) 3%.

### **Favorable Experience Dividend (FED):**

For members who retired after June 30, 1990, a favorable experience dividend (FED) reserve account has been established under Iowa Code §97B.49F(2). The main purpose of this account is to help offset the negative effects of postretirement inflation. All members and beneficiaries who receive a monthly allowance qualify for favorable experience dividend payments. Each November, IPERS determines if a FED payment should be paid the following January subject to the following conditions:

- The member must be retired one year.
- The FED rate cannot exceed 3%.
- The FED payment will be issued in a lump sum in January.
- The FED payment is not guaranteed.

The formula is as follows:

(December's Monthly benefit) X (12 months) X (Rate) X  
(Full calendar years retired) = FED

### **Source of Funds:**

Regular Membership:

#### **Contribution Rates**

<b>Time Period</b>	<b>Employees**</b>	<b>Employer</b>	<b>Total</b>
Prior to 7/1/07	3.70%	5.75%	9.45%
7/1/07 – 6/30/08	3.90%	6.05%	9.95%
7/1/08 – 6/30/09	4.10%	6.35%	10.45%
7/1/09 – 6/30/10	4.30%	6.65%	10.95%
7/1/10 – 6/30/11	4.50%	6.95%	11.45%
7/1/11 – 6/30/12	5.38%	8.07%	13.45%
7/1/12 and later	Determined by Contribution Rate Funding Policy*		

\*Change in contribution rate cannot exceed 1.0% per year.

\*\*Employee rate is 40% of total contribution rate.



## **APPENDIX B**

### **SHERIFFS/DEPUTIES AND PROTECTION OCCUPATION:**

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Average Salary: The average of the member's highest three years of covered wages

#### **Age and Service Requirements for Benefits:**

Normal Retirement Generally age 55. However, a member of the Sheriffs and Deputy Sheriffs (Group 1) may retire at age 50 with 22 years of service.

Inactive Vested Benefit Four years of service. Prior to July 1, 2005 inactive members could become eligible for vested benefits merely by reaching age 55.

Pre-retirement Death Benefit Upon death of a member before benefits have started.

Disability Benefit Upon meeting requirements to be vested, (i) if the active or inactive member begins receiving federal Social Security or Railroad Retirement disability benefits, or (ii) upon being determined by IPERS to be disabled under the provisions of Iowa Code section 97B.50A. The disability benefits under Iowa Code section 97B.50A must be applied for through IPERS within one (1) year after termination of employment. Benefits under Iowa Code section 97B.50A may be paid for in-service disability or ordinary disability.

#### **Retirement Benefits:**

Normal Retirement 60% of average salary after completion of 22 years of service, plus an additional 1.5% of average salary for years of service greater than 22 but not more than 30. Maximum formula is 72% of average salary.

Pre-retirement Death Benefit Beneficiaries of members may receive a lump sum determined by a formula that includes how much the member contributed to IPERS, years of service, highest year's salary, and other factors. Beneficiaries may have the option of receiving a monthly benefit based on the present value of the member's accrued benefit at death.

Disability Benefits An annuity, payable immediately, equal to the Normal Retirement Benefit, without an adjustment.

The benefit is the greater of the Normal Retirement Benefit and either 50% (for ordinary disability) or 60% (for in-service disability) of Average Salary.



## **APPENDIX B**

### **Termination Benefits:**

Less than four years of  
Service (Non-vested)

A refund of all of the member's accumulated contributions.

Four or more years of  
Service (Vested)

At the member's election either:

- (1) a refund of all of the member's accumulated contributions plus a portion (years of service divided by 22) of the employer's contributions with interest, or
- (2) a deferred benefit determined in the same manner as for normal retirement. Payments begin at normal retirement.

### **Form of Annuity:**

The base form, or normal form, is a life annuity with a guaranteed return of employee contributions (Option 2).

### **Optional Forms of Payment:**

*Option 1:* The member specifies a dollar amount, in \$1,000 increments, that the member wishes to have paid to a designated beneficiary following the death of the member. The death benefit will be in the form of a single payment and cannot exceed the amount of a member's own accumulated contributions to IPERS, and it cannot lower the member's benefit as calculated under Option 2 by more than 50%.

*Option 3:* After the member's death, all benefits cease.

*Option 4:* The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. The member specifies what benefit the contingent annuitant will receive after the death of the member. The monthly benefit can be the same as the member's monthly benefit or three-fourths, one-half, or one-fourth of the amount. These choices may be restricted if the contingent annuitant is not the member's spouse and is more than ten years younger than the member.

*Option 5:* If the member dies before ten full years (120 months of payments) have ended, the member's beneficiary will receive a monthly benefit for the remainder of the ten years. Members who have attained age 90 as of the first month of entitlement are not allowed to select this option.



## **APPENDIX B**

*Option 6:* The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. In addition, the monthly amounts are also reduced to pay for a pop-up feature. The pop-up feature provides that if the contingent annuitant dies before the member, the member's benefit will pop back up to what it would have been under IPERS Option 2, and death benefits may be payable to the member's designated beneficiary if certain conditions are met.

*Level Income Payment Option:* A Level Income payment alternative is authorized for members of the Sheriffs and Deputies group and the Protection Occupation group. This alternative applies to all IPERS retirement options listed above except Option 6. The Level Income payment alternative permits a member to receive a relatively level income both before and after age 62 when benefits from IPERS and Social Security are combined. Higher IPERS benefits are paid prior to age 62. When the member reaches age 62, the member's IPERS benefit is permanently reduced. This amount is determined when the member retires and is not recomputed based on the actual Social Security benefit.

**Actuarial Equivalent Lump Sum Payment:** If a vested member is entitled to receive a benefit and it is less than \$50 per month under Option 2, the member shall receive a retirement benefit in an actuarial equivalent lump sum payment. The lump sum will include the member's and employer's accumulated contributions.

**Post-retirement Benefit Increases:** Annual dividends are paid to those retired prior to July 1, 1990. Effective with the November 2000 dividend payment, the dividend is adjusted by the least of the following percentages: (1) the change in the CPI, (2) percentage certified to by the actuary as affordable by the System, and (3) 3%.



## **APPENDIX B**

### **Favorable Experience Dividend (FED):**

For members who retired after June 30, 1990, a favorable experience dividend (FED) reserve account has been established under Iowa Code §97B.49F(2). The main purpose of this account is to help offset the negative effects of postretirement inflation. All members and beneficiaries who receive a monthly allowance qualify for favorable experience dividend payments. Each November, IPERS determines if a FED payment should be paid the following January subject to the following conditions:

- The member must be retired one year.
- The FED rate cannot exceed 3%.
- The FED payment will be issued in a lump sum in January.
- The FED payment is not guaranteed.

The formula is as follows:

$(\text{December's Monthly benefit}) \times (12 \text{ months}) \times (\text{Rate}) \times (\text{Full calendar years retired}) = \text{FED}$

### **Source of Funds:**

#### **Sheriffs and Deputies:**

Determined by Contribution Rate Funding Policy. Employees contribute 50% and employers contribute 50%.

#### **Protection Occupation:**

Determined by Contribution Rate Funding Policy. Employees contribute 40% and employers contribute 60%.





## **APPENDIX C**

### **STATEMENT OF ACTUARIAL ASSUMPTIONS**

#### **Rate of Inflation (effective June 30, 2014)**

3.00% per annum

#### **Rate of Crediting Interest on Contribution Balances (effective June 30, 2014)**

3.75% per annum, compounded annually

#### **Long-Term Rate of Investment Return/Discount Rate (effective June 30, 1996)**

7.50% per annum, compounded annually, net of expenses.

#### **Wage Growth Assumption (effective June 30, 1999)\***

4.00% per annum based on 3.00% inflation assumption and 1.00% real wage inflation.

\*Total of 4.00% did not change, but the components changed June 30, 2006 and June 30, 2014

#### **Payroll Increase Assumption (effective June 30, 1999)**

4.00% per year

### **DEMOGRAPHIC ASSUMPTIONS:**

#### **Rates of Mortality**

To reflect anticipated future mortality improvements, generational mortality is used with projected mortality improvements based on Projection Scale AA.

#### **Pre-Retirement (effective June 30, 2010)**

##### **State**

Male	RP-2000 Employee Table, Generational, set back 3 years
Female	RP-2000 Employee Table, Generational, set back 8 years

##### **School**

Male	RP-2000 Employee Table, Generational, set back 3 years
Female	RP-2000 Employee Table, Generational, set back 8 years

##### **Other**

Male	RP-2000 Employee Table, Generational, no set back
Female	RP-2000 Employee Table, Generational, set back 8 years



### APPENDIX C

**Sheriffs/Deputies and  
Protection Occupation**

Male	RP-2000 Employee Table, Generational
Female	RP-2000 Employee Table, Generational

5% of active deaths are assumed to be service related for non-Regular members.

**Post-Retirement (effective June 30, 2014)**

<b>State</b>	RP-2000 Healthy Annuitant Table, Generational
Male	No age adjustment
Female	1 Year set back with 5% increase above age 75
<b>School</b>	RP-2000 Healthy Annuitant Table, Generational
Male	1 Year set back with rates decreased by 5% below age 75
Female	3 Year set back with 10% decrease before age 75 and 10% increase above age 75
<b>Other</b>	RP-2000 Healthy Annuitant Table, Generational
Male	No age adjustment
Female	2 Year set back with 5% increase above age 75
<b>Sheriffs/Deputies and Protection Occupation</b>	RP-2000 Healthy Annuitant Table, Generational
Male	No age adjustment
Female	No age adjustment
<b>Beneficiaries:</b>	Same as members
<b>Disabled Members (all groups):</b>	RP-2000 Disabled Mortality, Generational Set back 1 year for males and set forward 3 years for females



### **APPENDIX C**

#### **Retirement Rates (effective June 30, 2014)**

Upon meeting the requirements for early retirement, the following rates apply to Regular Members:

<b>Assumed Retirement Rates – Early</b>			
<u>Age</u>	<u>State</u>	<u>School</u>	<u>Other</u>
55	5.0%	8.0%	5.0%
56	5.0%	8.0%	5.0%
57	5.0%	8.0%	5.0%
58	5.0%	8.0%	5.0%
59	5.0%	9.0%	5.0%
60	5.0%	10.0%	5.0%
61	15.0%	15.0%	10.0%
62	15.0%	20.0%	20.0%
63	15.0%	20.0%	20.0%
64	15.0%	20.0%	20.0%

Upon reaching the requirements for normal retirement (unreduced benefits), the following rates apply:

<b>Assumed Retirement Rates – Select Unreduced</b>			
<u>Age</u>	<u>State</u>	<u>School</u>	<u>Other</u>
55	20.0%	30.0%	20.0%
56	15.0%	30.0%	20.0%
57	15.0%	30.0%	20.0%
58	15.0%	30.0%	20.0%
59	15.0%	30.0%	20.0%
60	15.0%	30.0%	20.0%
61	20.0%	30.0%	20.0%
62	40.0%	40.0%	40.0%
63	35.0%	30.0%	35.0%
64	30.0%	30.0%	35.0%
65	30.0%	30.0%	30.0%



### APPENDIX C

<u>Assumed Retirement Rates – Ultimate Unreduced</u>			
<u>Age</u>	<u>State</u>	<u>School</u>	<u>Other</u>
55	15.0%	23.0%	15.0%
56	15.0%	23.0%	15.0%
57	15.0%	23.0%	15.0%
58	15.0%	23.0%	15.0%
59	15.0%	23.0%	15.0%
60	15.0%	23.0%	15.0%
61	20.0%	30.0%	20.0%
62	40.0%	35.0%	35.0%
63	30.0%	30.0%	25.0%
64	30.0%	30.0%	25.0%
65	30.0%	45.0%	40.0%
66	30.0%	35.0%	30.0%
67	20.0%	25.0%	20.0%
68	20.0%	25.0%	20.0%
69	35.0%	40.0%	40.0%
70	100.0%	100.0%	100.0%

<u>Assumed Retirement Rates</u>		
<u>Age</u>	<u>Sheriffs and Deputies</u>	<u>Protection Occupation</u>
50	20.0%	
51	20.0%	
52	20.0%	
53	20.0%	
54	20.0%	
55	17.0%	20.0%
56	17.0%	10.0%
57	17.0%	10.0%
58	17.0%	10.0%
59	17.0%	10.0%
60	17.0%	10.0%
61	17.0%	10.0%
62	30.0%	35.0%
63	30.0%	30.0%
64	30.0%	30.0%
65	100.0%	100.0%

Terminated vested members are assumed to retire at age 62 (55 for Sheriffs/Deputies and Protection Occupation groups).

For Regular Membership, retired reemployed members are assumed to retire at a rate of 25% per year until age 80 when all are assumed to retire.



## APPENDIX C

### Rates of Disablement (effective June 30, 2010)

<u>Age</u>	<u>Assumed Rates</u>					
	<u>Males</u>			<u>Females</u>		
	<u>State</u>	<u>School</u>	<u>Other</u>	<u>State</u>	<u>School</u>	<u>Other</u>
27	0.020%	0.020%	0.020%	0.020%	0.030%	0.020%
32	0.020%	0.020%	0.020%	0.020%	0.030%	0.020%
37	0.040%	0.040%	0.040%	0.032%	0.040%	0.032%
42	0.065%	0.065%	0.065%	0.051%	0.050%	0.051%
47	0.120%	0.110%	0.140%	0.087%	0.090%	0.087%
52	0.220%	0.160%	0.326%	0.220%	0.165%	0.200%
57	0.320%	0.260%	0.630%	0.390%	0.240%	0.350%
62	0.420%	0.360%	0.900%	0.620%	0.320%	0.500%

### Assumed Rates Sheriffs/Deputies Protection Occupation

<u>Age</u>	<u>Rate</u>
27	0.150%
32	0.150%
37	0.150%
42	0.180%
47	0.230%
52	0.280%
57	0.380%
62	0.510%

### Rates of Termination of Employment (effective June 30, 2010)

#### Regular Membership

<u>Years of Service</u>	<u>Male</u>			<u>Female</u>		
	<u>State</u>	<u>School</u>	<u>Other</u>	<u>State</u>	<u>School</u>	<u>Other</u>
1	15.4%	15.0%	21.0%	15.4%	15.0%	21.0%
5	5.5%	6.9%	8.4%	5.5%	6.9%	9.2%
10	2.2%	2.9%	4.3%	2.2%	2.9%	5.8%
15	1.7%	1.8%	2.6%	1.7%	1.8%	4.1%
20	1.1%	1.3%	2.4%	1.1%	1.3%	3.2%
25	1.1%	1.2%	2.0%	1.1%	1.2%	2.4%
30	1.1%	1.2%	1.2%	1.1%	1.2%	1.5%



### APPENDIX C

#### Sheriffs/Deputies and Protection Occupation

<u>Age</u>	<u>Rate of Termination</u>
22	5.8%
27	5.8%
32	3.5%
37	3.0%
42	2.6%
47	2.0%
52	2.0%

#### Probability of Electing a Deferred Vested Benefit (effective June 30, 2010)

<u>Years of Service</u>	<u>Regular Membership</u>					
	<u>Male</u>			<u>Female</u>		
	<u>State</u>	<u>School</u>	<u>Other</u>	<u>State</u>	<u>School</u>	<u>Other</u>
5	66.0%	76.0%	61.0%	61.0%	80.0%	70.0%
10	73.0%	81.0%	66.0%	66.0%	80.0%	73.0%
15	78.0%	86.0%	71.0%	76.0%	85.0%	80.0%
20	83.0%	91.0%	76.0%	86.0%	90.0%	85.0%
25	88.0%	95.0%	80.0%	96.0%	95.0%	90.0%
30	90.0%	95.0%	80.0%	100.0%	100.0%	90.0%

#### Sheriffs/Deputies and Protection Occupation

<u>Years of Service</u>	<u>Rate</u>
5	53%
10	65%
15	85%
20	95%
25	100%
30	100%



## APPENDIX C

### Rates of Salary Increase\* (effective June 30, 2010)

<u>Years of Service</u>	<u>Annual Increase</u>			<u>Sheriffs/Deputies and Protection Occupation</u>
	<u>State</u>	<u>School</u>	<u>Other</u>	
1	15.0%	17.0%	15.0%	17.0%
5	7.6%	6.5%	6.1%	6.5%
10	6.3%	5.3%	5.3%	5.3%
15	5.2%	4.5%	4.8%	4.8%
20	4.8%	4.2%	4.5%	4.5%
25	4.6%	4.0%	4.4%	4.5%
30+	4.3%	4.0%	4.4%	4.0%

\* Includes 4.0% wage growth



## **APPENDIX D**

### **CONTRIBUTION RATE FUNDING POLICY**

#### **Background:**

IPERS is charged with setting a "Required Contribution Rate" for each membership category within IPERS that will discharge its liabilities. Iowa Code §97B.11(3)(d) provides the basic framework for implementing this charge by stating:

The Required Contribution Rate that is set by the system for a membership category shall be the contribution rate the system actuarially determines, based upon the most recent actuarial valuation of the system and using the actuarial methods, assumptions, and funding policy approved by the investment board, is the rate required by the system to discharge its liabilities as a percentage of the covered wages of members in that membership category. However, the Required Contribution Rate set by the system for members in Regular service for a fiscal year shall not vary by more than one percentage point from the Required Contribution Rate for the prior fiscal year.

#### **Goal:**

To establish policy and procedures in setting contribution rates that combined with investment income will fund the benefits specified in Chapter 97B of the Iowa Code.

To move towards fully funding the benefits (100% or greater funded ratio) in as expeditious manner as is reasonable within the guidelines acknowledged herein.

#### **Procedure:**

The Investment Board shall retain a consulting actuary to conduct an annual actuarial valuation of assets and liabilities. The consulting actuary shall use the entry age normal cost method and all other actuarial assumptions and methods approved by the Investment Board.

In the annual valuation process, the consulting actuary shall calculate an Actuarial Contribution Rate and a Required Contribution Rate pursuant to this policy. Each shall be calculated as a level percent of pay.

There is a one year lag between the completion of an annual actuarial valuation report and the fiscal year to which the contribution rates calculated therein are applied. Therefore, the Actuarial Contribution Rate and the Required Contribution Rate declared in the annual valuation process are applicable to the fiscal year immediately following the completion of the valuation report (for example the rates declared in the report presented to the Investment Board in December, 2013 are applicable to the rates for the fiscal year beginning July 1, 2014).





## **APPENDIX D**

### **Actuarial Contribution Rate (ACR):**

1. ACR is the combined employer and employee contribution rate that is the minimum rate necessary to fund the benefits using the actuarial assumptions and methods approved by the Investment Board.
2. A separate ACR shall be determined for each membership group within IPERS according to this policy.
3. The ACR shall consist of:
  - a. Normal cost and an amortization payment (not less than zero) of any unfunded actuarial liability.
  - b. Normal cost may only be offset by a negative amortization payment after a membership group has attained a funded ratio of 110 percent or greater for 3 consecutive years.

### **Required Contribution Rate:**

1. The Required Contribution Rate is the combined employer and employee rate payable pursuant to this policy and Iowa Code §97B.11(3)(d).
2. The Required Contribution Rate shall be determined by comparing the ACR determined in the annual valuation process to the Required Contribution Rate of the previous year.
  - a. If the ACR is less than the previous Required Contribution Rate by fewer than 50 basis points, then the Required Contribution Rate shall remain unchanged from the previous year.
  - b. If the ACR is less than the previous Required Contribution Rate by 50 basis points or more, then the Required Contribution Rate shall be lowered by 50 basis points provided the funded ratio of the membership group is 95% or higher.
  - c. If the ACR is greater than the Required Contribution Rate of the previous year, then the Required Contribution Rate shall be:
    - i. Increased to be equal to ACR for Sheriffs and Deputies.
    - ii. Increased to be equal to ACR for Protection Occupation.
    - iii. Increased to be equal to ACR for Regular membership, or one percentage point greater than the prior year's Required Contribution Rate, whichever is smaller.



## **APPENDIX D**

### **Policy Guidelines:**

In adopting actuarial assumptions and methods to be used in setting contributions, the Investment Board shall strive to provide a balance among the following:

1. Stability in contributions (such as use of smoothing and amortization schedules that do not produce dramatic swings in the required contributions from year to year).
2. Disciplined funding approach (such as requiring full payment of normal cost and an amortization payment towards the unfunded actuarial liability and deferring decreases in contribution rates until strong funded ratios are attained).
3. Interperiod equity (such as shortening the amortization schedule when reasonable and amortization of retroactive benefit enhancements over a reasonable time period such as the average working lifetime for active members and the average life expectancy of retired members).
4. Support an affordable, sustainable plan (in consultation with the BAC review affordability of required contribution rates and/or the benefit provisions).
5. At a minimum, this policy will be reviewed in conjunction with the quadrennial experience study.



## Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

April 9, 2015

Ms. Darla Iverson  
Chief Financial Officer  
Iowa Public Employees' Retirement System  
7401 Register Drive  
Des Moines, IA 50321

Dear Ms. Iverson:

Attached is an exhibit to supplement the information previously provided in our GASB 68 report dated March 23, 2015. The information on this exhibit is based on all of the data, methods, and assumptions described in that report, and is provided to assist you in developing detailed schedules for employer reporting.

Respectfully submitted,

Patrice A. Beckham, FSA, EA, FCA, MAAA  
Principal and Consulting Actuary

Brent A. Banister, PhD, FSA, EA, FCA, MAAA  
Chief Pension Actuary





## Supplement to IPERS GASB 68 Report

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
<b>All Membership Groups</b>			
Total Pension Liability	\$35,835,120,633	\$32,004,456,088	\$28,771,517,564
Fiduciary Net Position	<u>\$28,038,549,893</u>	<u>\$28,038,549,893</u>	<u>\$28,038,549,893</u>
Net Pension Liability	\$7,796,570,740	\$3,965,906,195	\$732,967,671
<b>Regular Members</b>			
Total Pension Liability	\$33,804,614,970	\$30,204,846,287	\$27,166,268,611
Fiduciary Net Position	<u>\$26,157,761,036</u>	<u>\$26,157,761,036</u>	<u>\$26,157,761,036</u>
Net Pension Liability	\$7,646,853,934	\$4,047,085,251	\$1,008,507,575
<b>Sheriffs and Deputies</b>			
Total Pension Liability	\$626,688,739	\$556,135,092	\$496,884,802
Fiduciary Net Position	<u>\$559,260,253</u>	<u>\$559,260,253</u>	<u>\$559,260,253</u>
Net Pension Liability	\$67,428,486	(\$3,125,161)	(\$62,375,451)
<b>Protection Occupation</b>			
Total Pension Liability	\$1,403,816,924	\$1,243,474,709	\$1,108,364,151
Fiduciary Net Position	<u>\$1,321,528,604</u>	<u>\$1,321,528,604</u>	<u>\$1,321,528,604</u>
Net Pension Liability	\$82,288,320	(\$78,053,895)	(\$213,164,453)

This exhibit is a supplement to the Cavanaugh Macdonald Consulting GASB 68 report dated March 23, 2015.  
Please see that report for details concerning data, methods and assumptions.

